

REMARKS

Claims 1-9 and 16-18 are pending in this application.

Claim Rejections under 35 U.S.C. §112

Claim 5 has been amended to overcome the 35 U.S.C. §112, second paragraph, rejection.

Claim Rejections under 35 U.S.C. §102

Claims 1-6, 8-9 and 16-18 are rejected under 35 U.S.C. §102(e) as being anticipated by Beardsley et al., U.S. Patent No. 6,304,980 (Beardsley).

Beardsley is directed to disaster recovery protection for data processing systems. The recovery system relies upon seamless switching or swapping of host directed I/O operations from a primary storage device to a secondary storage device when a failure occurs on a primary storage controller or primary storage device. This involves peer-to-peer dynamic address switching (PDAS) where the primary storage site transfers its received updates directly to a mirroring backup storage site (the primary's peer). See, column 4, line 33-43 of Beardsley. The primary data mover 204 collects record updates and transmits these records to the second data mover 214 in order to store the data into the DASDs 216 via the multiple secondary storage controller 215, as pointed out in the Office Action. Thus, Applicants agree that Beardsley includes hardware equivalent to the transmitter provided within the first computer node for sending data records stored in the first storage area. Beardsley also discloses the first and second computer nodes.

However, the issue is whether Beardsley fairly discloses the receiver provided within the second computer node that is connected to the transmitter of the first computer node via a

network for requesting the transmitter to send a record group of the data records stored in the first storage area via the network and designated by a request command sent by the receiver in combination with receiving the record group of the data records from the transmitter via the network and storing the record group of the data records to the second storage area, as claimed. Further, according to claim 1, the second processor of the second computer node designates a record group to be read from the first storage area and lets the receiver send the request command to the transmitter. When the transmitter receives the request command, the data records that are requested are sent to the receiver of the second computer node. The data transfer that is requested, therefore, can be carried out without involvement of the first processor of the first computer node, which lessens the load on the first processor.

In contrast, the system of Beardsley functions as a data backup system, in which data is transferred from the primary site 221 to the secondary site 231 (Figure 2) using applications 202, 203 that generate data of record updates that are collected by the primary storage controllers 205 and read by the primary data mover 204. These record updates are transmitted to secondary data mover 214 while maintaining data integrity. Further, in Beardsley, an improvement is disclosed wherein the primary controller receives a reserve command from one of the hosts and reserves primary storage for the exclusive use of the host that initiated the reserve. The reserve placed on the primary storage system is transferred to the secondary storage system when a failure occurs, which is the main point of Beardsley. See column 6, lines 14-15 in the Summary of the Invention section of Beardsley.

During normal operation of the Beardsley data backup system, data is transferred from the primary site 221 to the secondary site 231 (Figure 2) using applications 202, 203 that generate data or record updates that are collected by the primary storage controllers 205 and read by the primary data mover 204. These record updates are transmitted to secondary data mover 214 while maintaining data integrity. Further, in Beardsley, an improvement is

disclosed wherein the primary controller receives a reserve command from one of the hosts and reserves primary storage for the exclusive use of the host that initiated the reserve. The reserve which is initiated by a host on the primary storage system is transferred to the secondary storage system when a failure occurs. See column 6, lines 14-15 in the Summary of the Invention section of Beardsley.

Referring to the Office Action, Response to Arguments section on page 8, the Beardsley reference is relied upon for disclosing that the secondary computer makes the read request to read a set of data records stored in the memory of the primary computer based on an indication from a processor of a secondary computer. Specifically, the storage controllers 215 of the secondary computer are relied upon for performing this function. Applicants disagree with this interpretation of Beardsley since the controllers 215 do not function in a comparable way to the claimed receiver, which requests the transmitter to send a record group of the data records stored in the first storage area via the network and designated by a request command sent by the receiver (claim 1) or sends the read request to the transmitter via the network in response to an indication of the second processor and the transmitter reads the part of the plurality of data records from the first memory and sends the part of the plurality of data records to the receiver via the network in response to the read request (claim 16).

Figure 4 of Beardsley shows a detailed configuration of one of the storage paths 401 in the storage controller 400 (equivalent to the storage controller 215 in Fig. 2 and 325 in Fig. 3). The storage paths direct the transfer of data records through the storage controller from the host computer to the DASDs (375 in Fig. 3 and 216 in Figure 2). Applicants note that the directing of the transferring of data records by the storage path 401 is not equivalent to the claimed receiver requesting of the transmitter to send a record group of the data records stored in said first storage area, as claimed by Applicants in claim 1; or the claimed sending of the read request by the receiver to the transmitter via the network in response to the indication of the

second processor followed by the transmitter reading the part of the plurality of data records from the first memory, as claimed in claim 16. Finally, the Office Action points out that the storage path 401 also maintains the status of one or duplex patterns and sets/reset flags within the control block to indicate when the secondary DASD 107 needs to be synchronized with the primary DASD 104. However, this step is also not equivalent to the claimed functions performed by the receiver of the second computer node of the invention.

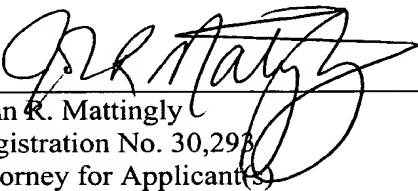
The computer system of the present invention operates differently than the computer system disclosed by Beardsley. The computer system of the present invention allows a first computer node to process transactions, for example, and allows a seconds computer node to analyze information using data records from the first computer node, for example. In such an example, the load placed on the first processor of the first computer node for the data transfer between the first and second computer nodes is minimized, and therefore the processor of the first computer node does not realize a decrease in performance by the data transfer to the second computer node. Further, as compared to Beardsley, the first and second computer nodes operate normally and the data transfer from the first computer node to the second computer node is initiated and requested by the receiver in the second node, unlike Beardsley. Further, the present invention does not involve switching or swapping of the first and second computer nodes, as in Beardsley, upon the occurrence of a failure. Accordingly, Beardsley does not anticipate the invention claimed by Applicants and therefore the 35 U.S.C. §102(e) should be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration and reexamination are respectfully requested.

Respectfully submitted,

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